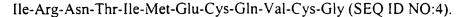
WHAT IS CLAIMED IS:

- 1. An oligomeric KDEL receptor inhibitor protein comprising a plurality of protein subunits, wherein each subunit comprises an oligomerization domain and has, at its carboxy terminus, a region which binds to a KDEL receptor.
- 2. The KDEL receptor inhibitor protein of claim 1, wherein the region which binds to a KDEL receptor has the amino acid sequence Lys-Asp-Glu-Leu.
- 3. The KDEL receptor inhibitor protein of claim 1, wherein the oligomerization domain is a pentamerization domain.
- 4. The KDEL receptor inhibitor protein of claim 2, wherein the oligomerization domain is a pentamerization domain.
- 5. The KDEL receptor inhibitor protein of claim 3, wherein the pentamerization domain is derived from a cartilage oligomeric matrix protein.
- 6. The KDEL receptor inhibitor protein of claim 1, wherein the oligomerization domain is derived from a thrombospondin protein.
- 7. The KDEL receptor inhibitor protein of claim 5, wherein the pentamerization domain has the amino acid sequence Gly-Asp-Leu-Ala-Pro-Gln-Met-Leu-Arg-Glu-Leu-Gln-Glu-Thr-Asn-Ala-Ala-Leu-Gln-Asp-Val-Arg-Glu-Leu-Leu-Arg-Gln-Gln-Val-Lys-Glu-Ile-Thr-Phe-Leu-Lys-Asn-Thr-Val-Met-Glu-CysAsp-Ala-Cys-Gly (SEQ ID NO: 1).
- 8. The KDEL receptor inhibitor protein of claim 5, wherein the pentamerization domain has the amino acid sequence Ser-Asp-Leu-Gly-Pro-Gln-Met-Leu-Arg-Glu-Leu-Gln-Glu-Thr-Asn-Ala-Ala-Leu-Gln-Asp-Val-Arg-Asp-Trp-Leu-Arg-Gln-Gln-Val-Arg-Glu-Ile-Thr-Phe-Leu-Lys-Asn-Thr-Val-Met-Glu-Cys-Asp-Ala-Cys-Gly (SEQ ID NO:2).
- 9. The KDEL receptor inhibitor protein of claim 6, wherein the oligomerization domain has the amino acid sequence Gly-Glu-Gln-Thr-Lys-Ala-Leu-Val-Thr-Gln-Leu-Thr-Leu-Phe-Asn-Gln-Ile-Leu-Val-Glu-Leu-Arg-Asp-Asp-Ile-Arg-Asp-Gln-Val-Lys-Glu-Met-Ser-Leu-Ile-Arg-Asn-Thr-Ile-Met-Glu-Cys-Gln-Val-Cys-Gly (SEQ ID NO:3).
- 10. The KDEL receptor inhibitor protein of claim 6, wherein the oligomerization domain has the amino acid sequence Gly-Glu-Gln-Thr-Lys-Ala-Leu-Val-Thr-Gln-Leu-Thr-Leu-Phe-Asn-Gln-Ile-Leu-Val-Glu-Leu-Arg-Asp-Ile-Arg-Asp-Gln-Val-Lys-Glu-Met-Ser-Leu-



- 11. The KDEL receptor inhibitor protein of claim 6, wherein the oligomerization domain has the amino acid sequence Gly-Asp-Phe-Asn-Arg-Gln-Phe-Leu-Gly-Gln-Met-Thr-Gln-Leu-Asn-Gln-Leu-Gly-Glu-Val-Lys-Asp-Leu-Leu-Arg -Gln-Gln-Val-Lys-Glu-Thr-Ser-Phe-Leu-Arg-Asn-Thr-Ile-Ala-Glu-Cys-Gln-Ala-Cys-Gly (SEQ ID NO:5).
- 12. The KDEL receptor inhibitor protein of claim 6, wherein the oligomerization domain has the amino acid sequence Gly-Asp-Val-Ser-Arg-Gln-Leu-Ile-Gly-Gln-Ile-Thr-Gln-Met-Asn-Gln-Met-Leu-Gly-Glu-Leu-Arg-Asp-Val-Met-Arg-Gln-Gln-Val-Lys-Glu-Thr-Met-Phe-Leu-Arg-Asn-Thr-Ile-Ala-Glu-Cys-Gln-Ala-Cys-Gly (SEQ ID NO:6).
- 13. The KDEL receptor inhibitor protein of claim 1, wherein the oligomerization domain has the amino acid sequence Gln-Lys-Leu-Gln-Asn-Leu-Phe-Ile-Asn-Phe-Cys-Leu-Ile-Leu-Ile-Cys-Leu-Leu-Leu-Leu-Ile-Cys-Ile-Ile-Val-Met-Leu-Leu (SEQ ID NO:7).
 - 14. An isolated nucleic acid encoding a KDEL receptor inhibitor of claim 1.
 - 15. An isolated nucleic acid encoding a KDEL receptor inhibitor of claim 2.
 - 16. An isolated nucleic acid encoding a KDEL receptor inhibitor of claim 3.
 - 17. An isolated nucleic acid encoding a KDEL receptor inhibitor of claim 4.
 - 18. An isolated nucleic acid encoding a KDEL receptor inhibitor of claim 5.
 - 19. An isolated nucleic acid encoding a KDEL receptor inhibitor of claim 6.

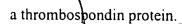
20. A method of increasing the secretion of a protein by a cell, wherein the protein comprises a ligand sequence which binds to a KDEL receptor, comprising exposing the cell to a KDEL receptor inhibitor at a concentration which increases the secretion of the protein from the cell relative to the secretion of the protein in the absence of the KDEL receptor inhibitor.

- 21. The method of claim 20, wherein the KDEL receptor inhibitor is an oligomeric KDEL receptor inhibitor protein comprising a plurality of protein subunits, wherein each subunit comprises an oligomerization domain and has, at its carboxy terminus, a region which binds to a KDEL receptor.
- 22. The method of claim 21, wherein the region of the KDEL inhibitor protein which binds to a KDEL receptor has the amino acid sequence Lys-Asp-Glu-Leu.
 - 23. The method of claim 21, wherein the oligomerization domain of the KDEL

inhibitor protein is a pentamerization domain.

24 The method of claim 22, wherein the oligomerization domain of the KDEL inhibitor protein is a pentamerization domain.

- 25. The method of claim 23, wherein the pentamerization domain is derived from a cartilage oligomeric matrix protein.
- 26. The method of claim 21, wherein the oligomerization domain is derived from a thrombospondin protein
- 27. The method of claim 24, wherein the pentamerization domain is derived from a cartilage oligomeric matrix protein.
- 28. The method of claim 22, wherein the oligomerization domain is derived from a thrombospondin protein.
- 29. A method for promoting the release of a heat shock protein/antigenic peptide complex from a cell, where the heat shock protein contains a ligand sequence which binds to a KDEL receptor, comprising exposing the cell to a KDEL receptor inhibitor at a concentration which increases the secretion of the complex from the cell relative to the secretion of the complex in the absence of the KDEL receptor inhibitor.
- 30. The method of claim 29, wherein the KDEL receptor inhibitor is an oligomeric KDEL receptor inhibitor protein comprising a plurality of protein subunits, wherein each subunit comprises an oligomerization domain and has, at its carboxy terminus, a region which binds to a KDEL receptor.
- 31. The method of claim 30, wherein the region of the KDEL inhibitor protein which binds to a KDEL receptor has the amino acid sequence Lys-Asp-Glu-Leu.
- 32. The method of claim 30, wherein the oligomerization domain of the KDEL inhibitor protein is a pentamerization domain.
- 33. The method of claim 31, wherein the oligomerization domain of the KDEL inhibitor protein is a pentamerization domain.
- 34. The method of claim 32, wherein the pentamerization domain is derived from a cartilage oligomeric matrix protein.
 - 35. The method of claim 30, wherein the oligomerization domain is derived from



36. The method of claim 33, wherein the pentamerization domain is derived from a cartilage oligomeric matrix protein.

37. The method of claim 31, wherein the oligomerization domain is derived from a thrombospondin protein.

- 38. A method of inducing or increasing an immune response to a target antigen, comprising administering, to a subject in need of such treatment, an effective amount of a KDEL receptor inhibitor, where the target antigen forms a complex with a heat shock protein and the heat shock protein contains a ligand sequence which binds to a KDEL receptor.
 - 39. The method of claim 38 wherein the target antigen is an endogenous antigen.
- 40. The method of claim 38 wherein the target antigen is an antigen which has been introduced into the subject.
- 41. The method of claim 38 wherein the heat shock protein is an endogenous heat shock protein.
- 42. The method of claim 38 wherein the heat shock protein has been introduced into the subject by the administration of a nucleic acid encoding the heat shock protein.
- 43. A non-human transgenic animal carrying a transgene encoding the KDEL receptor inhibitor protein of claim 1 operably linked to a promoter sequence.

Odd (5)